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Basic Testing of DSC Panels
PC585, PC1565, Power 608, Power 832

1) Connect a keypad to the panel
2) Connect a 1K OHM (Brown-Black-Red) across the Bell terminals
3) Connect the battery to the battery red & black leads.
4) Connect the telephone line to the Ring & Tip terminals
5) Default the panel to factory settings by wiring a short between PGM1 and zone input 1 and then applying 16.5VAC power (plug pack) to the AC input terminals
6) After approximately 4 seconds the keypad will produce a number of "beeps" indicating that the unit has reset to factory settings.

If installer lockout has been enabled the unit's line relay will quickly click 10 times indicating that the panel can not be reset to factory settings. You will need the installer code to reset the panel.

If the early model Power 832 (version 1.0 software) is defaulted to factory settings it will return to North American settings (ie no reporting codes, 4+2 format, etc.). The unit will need to be re-programmed to Australian requirements, either via a download or manually by the keypad

7) Remove the short between PGM1 and zone 1.
8) The trouble (or System) LED will be illuminated because there is no time or date in the panel. Enter [*6] Master Code [1234] then [1] for time and date. You can now just exit out by pressing [#] and there should now be no troubles in the system.
9) Enter the Programming – [*8] [Installer code].
   a) For convenience of testing, program the system times to shorter intervals, enter [005] (entry delay time) and then [005] (exit delay time) and then press [#].
   b) If the unit is a PC585, PC1565 or Power608 program the units PGM1 to be a strobe output (type [10] in location [009]).
   C) Enter the monitoring station receiver telephone number in location [301]
   d) Enter the 4 digit central station account number in location [310] (any 0 is entered as an A [*1 *]). Escape out of programming mode [#].
10) If the trouble (or System) LED is illuminated press [*2] to ascertain the trouble. The troubles are described in the Keypad Commands section of the installation manual.
11) Test that the Auxiliary DC output voltage is correct by placing a meter set to 20volts DC across the AUX + and – terminals (Red to + and Black to -). The meter should read between 13.7 and 13.85 volts DCI

If the AUX voltage is either to high or to low then the panel should be sent to DSC for repair.

12) To check to see if the zones are operating OK place a 5.6K Ohm resistor (Green-Blue-Red) across zone 1 input to a COM and the zone 1 LED should go out. Continue the test by placing the resistor between zone 2 input and a COM, zone 3 input and a COM etc until all zones are tested (ie the corresponding zone LED goes out for as long as the resistor is there).

If a zone LED does not go out this could indicate that the zone over voltage protection device has short circuited due to a high voltage static discharge to the cabling. This device will need to be replaced by DSC personnel

13) Check that the voltages across the outputs are correct. Place a meter set to 20 volts DC across the Bell + and – terminals, there should be a reading of around 1.5 volts. If the reading is 12 to 13.8 volts check to make sure that the system is not in alarm (input the master code 1234 to cancel an alarm if one exists).

If the unit is not in alarm this output could indicate that the output transistor is damaged and the unit will need to be repaired.

14) Check that the Strobe output is OK by placing a meter set to 20 volts DC across PGM1and +AUX terminals for the PC585, PC1565 and Power 608 and PGM2 and +AUX for the power 832. The voltage should decay to less than 0.5 of a volt within about 2 seconds. If the voltage remains at 12 to 13.8 volts then check your programming in location 009 and check that the unit is not in alarm.

If the voltage remains at 12v to 13,5 volts then the output transistor could be damaged and the unit will need to be repaired.

15) In order to test the alarm and reporting functions place a 5.6 Kohm resistor (Green-Blue- Red) between zone 1 input and COM, the red LED for zone 1 should go out. Bypass all other zones – [*1] 02 for zone 2, 03 for zone 3 etc until all zones other than zone 1 are bypassed. Press [#] the green ready light should now be on.
16) You can now arm the system by using the master code [1234]. After 5 seconds the red armed LED should be on and the green ready LED should be out. A report will now be sent to the central station receiver, the panel should report a closing (402) by user 40 as well as a group bypass (570).
17) To check that the unit has correctly looped the line and then after reporting drops of the line, connect a meter set to 100 volts DC across the line (Ring and Tip terminals). The meter will read around 48 volts DC when the dialler is “off line” and will drop to between 6 volts and 16 volts when the unit is dialling or reporting. What should happen is that when the dialler loops the line the line voltage will drop to 6 to 16 volts for the length of time that it takes to dial and then report it’s information, this could take about 15 seconds, if the central station telephone lines are busy the time on line will obviously be extended until the call is answered.

If the voltage across the telephone line is constant between 6 to 16 volts, this could indicate that the lightning protection devices are short circuit and will need to be replaced by DSC.

Caution: The next tests can only be carried out after the unit has been powered up for more than 3 minutes. This is because some units have the Bypass on power up feature which bypass zones for a period after power up.

18) With the Armed light illuminated remove one leg of the resistor installed between zone 1 and COM. The entry warning tone will be generated by the keypad. Let the entry timer time out, causing the unit to go into alarm.
19) With the meter set to 20 volts DC place the meter across the Bell + an – terminals, the meter should read between 12 to 13.8 volts.
Next place the meter across the strobe output (PGM1 for the PC585, PC1565 and Power 608 and PGM2 for the Power 832) and + AUX, again the meter should read between 12 to 13.8 volts.

If either of these 2 outputs do not read 12 to 13.8 volts under an alarm condition then the output transistors may have been damaged and the unit should be returned to DSC for repair.

20) Now replace the resistor into the terminal, an alarm and restoral report (134) for zone 1 should have been transmitted to the central station.
21) Disarm the system by entering the master code [1234]. Check that the bell output and strobe outputs have returned to normal (around 1.5 volts for the bell and 0.5v for the strobe). A disarm signal 402 for user 1 should be transmitted to the central station.

These steps have tested the basic operating functions of the unit – After completion reset the panel to factory settings

To test a keypad for functionality, connect the keypad to a control panel and:

1) Check that each zone LED is illuminated
2) Check each button by depressing the button and ensure that it beeps
3) Check the Bypass LED by bypassing the zones, enter [*1] and then each zone number (ie 01, 02, 03 etc) and then press the [#] button.
4) The Green Ready LED and the bypass (or system) LED should be illuminated.
5) Arm the system to test the red armed LED.
6) Test that the function buttons are operating correctly.

In some cases it may be found that the keypad has accidentally been programmed as a partition 2 keypad when it is connected to a single partition system. This causes the keypad to appear “dead” and also the trouble (system) LED is illuminated.

To reprogram the keypad to partition 1:

1) Press the [#] button on the keypad for about 3 seconds and the keypad should beep a number of times then press the number [1] button on the keypad. This should temporally enrol the keypad on partition 1
2) Enter programming mode [*8] [installer code] and then enter keypad programming [000]
3) When in keypad programming enter a further [0] (keypad ‘slot”programming) and then enter [11] (for keypad 1 on partition 1).
4) Escape out of programming [#] [#].